Ammonium VARIO LR TT 65

0.02 - 2.5 mg/l N

Salicylate

Instrument specific information

The test can be performed on the following devices. In addition, the required cuvette and the absorption range of the photometer are indicated.

Instrument Type	Cuvette	λ	Measuring Range
MD 600, MD 610, MD 640, MultiDirect	ø 16 mm	660 nm	0.02 - 2.5 mg/l N
SpectroDirect, XD 7000, XD 7500	ø 16 mm	655 nm	0.02 - 2.5 mg/l N

Material

Required material (partly optional):

Reagents	Packaging Unit	Part Number
VARIO Am Vial Test Reagent, Set Low Rage F5	1 Set	535600

Application List

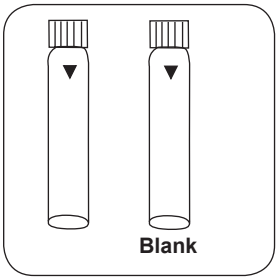
- Waste Water Treatment
- Drinking Water Treatment
- Raw Water Treatment

Preperation

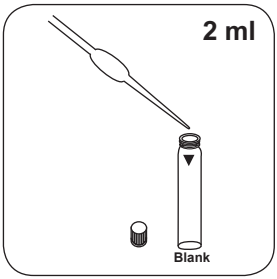
1. Strong alkaline or acidic water samples must be adjusted to approx. pH 7 before analysis (use 1 mol/l Hydrochloric acid or 1 mol/l Sodium hydroxide).

Implementation of the provision Ammonium LR with Vario Vial Test

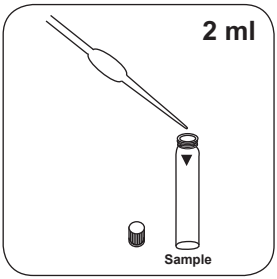
Select the method on the device



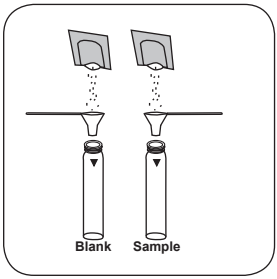
Prepare two **reaction vials**. Mark one as a blank.



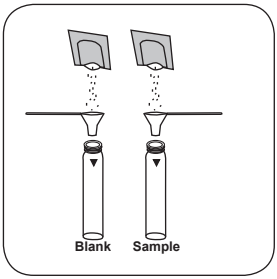
Put **2 ml deionised water** in the blank.



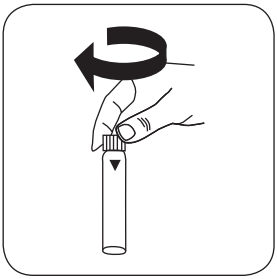
Put **2 ml sample** in the sample vial.



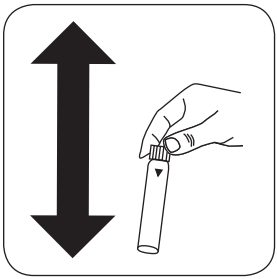
Add **a Vario AMMONIA Salicylate F5 powder pack** in each vial.



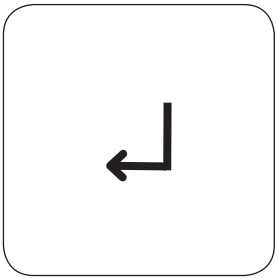
Add **a Vario AMMONIA Cyanurate F5 powder pack** in each vial.



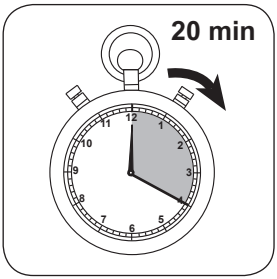
Close vial(s).



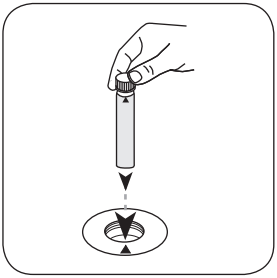
Dissolve the contents by shaking.



Press the **ENTER** button.

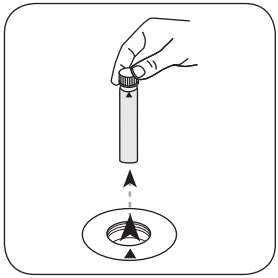


Wait for **20 minute(s) reaction time**.

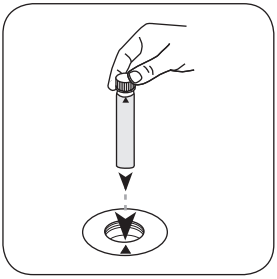


Place **blank** in the sample chamber. • Pay attention to the positioning.

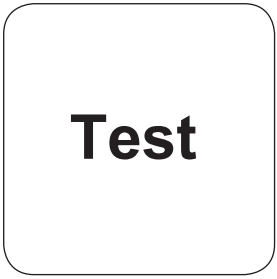
Press the **ZERO** button.



Remove **vial** from the sample chamber.



Place **sample vial** in the sample chamber. • Pay attention to the positioning.



Press the **TEST** (XD: **START**) button.

The result in mg/l Ammonium appears on the display.

Analyses

The following table identifies the output values can be converted into other citation forms.

Unit	Cite form	Scale Factor
mg/l	N	1
mg/l	NH_4	1.29
mg/l	NH_3	1.22

Chemical Method

Salicylate

Appendix

Interferences

Removeable Interferences

- Iron interferes with the test and can be eliminated as follows: Determine the amount of total iron present. To produce the blank, add an iron standard solution with the same concentration instead of deionised water.

Method Validation

Limit of Detection	0.044 mg/l
Limit of Determination	0.131 mg/l
End of Measuring Range	2.5 mg/l
Sensitivity	0.68906 mg/l
Confidence Range	0.03 %
Standard Deviation	0.011 µg
Variation Coefficient	0.78 %

Derived from

DIN 38406-E5-1
ISO 7150-1

[a)] determination of free, combined and total | [b)] Reactor is necessary for COD (150 °C), TOC (120 °C) and total -chromium, - phosphate, -nitrogen, (100 °C) | [c)] MultiDirect: Adapter is necessary for Vacu-vials© (Order code 19 20 75) | [d)] Spectroquant© is a Merck KGaA Trademark | [e)] alternative reagent, used instead of DPD No.1/No.3 in case of turbidity in the water sample caused by high concentration of calcium and/or high conductivity | [f)] additionally required for determination of bromine, chlorine dioxide and ozone in the presence of chlorine | [g)] Reagent recovers most insoluble iron oxides without digestion | [h)] additionally required for samples with hardness values above 300 mg/l $CaCO_3$ | [i)] high range by dilution | [#] including stirring rod, 10 cm